

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

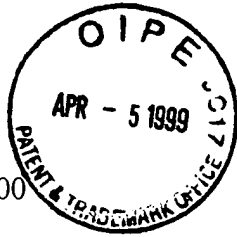
In re application of

Takuo HIBI, et al.

Appln. No. 09/249,100

Filed: February 12, 1999

For: PROCESS FOR PRODUCING CHLORINE



Group Art Unit: 1754

Examiner:

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §§ 1.97 and 1.98**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicants hereby notify the U.S. Patent and Trademark Office of the documents which are listed on the attached Form PTO-1449 and/or listed herein and which the Examiner may deem relevant to patentability of the claims of the above-identified application.

1. P. Ruterana et al., "Selective Dispersion of the Ru-RuO<sub>x</sub>/TiO<sub>2</sub> Catalyst For Methanation of CO<sub>2</sub> At Room Temperature And Atmospheric Pressure", *Mat. Res. Soc. Symp. Proc.*, Vol. 139, 1989, pp. 327-332.
2. Japanese Patent Application No. 8-225304, published September 3, 1996 with English Abstract.
3. Michael R. Prairie et al., "A Fourier Transform Infrared Spectroscopic Study of CO<sub>2</sub> Methanation on Supported Ruthenium", *Journal of Catalysis*, Vol 129, 1991, pp. 130-144.
4. N. M. Gupta et al., "FtiR Spectroscopic Study of the Interaction of CO<sub>2</sub> and CO<sub>2</sub> + H<sub>2</sub> over Partially Oxidized Ru/TiO<sub>2</sub> Catalyst", *Journal of Catalysts*, Vol. 146, 1994, pp. 173-184.
5. U.S. Patent No. 4,847,231 issued July 11, 1989 to Grätzel et al.

6. U.S. Patent No. 5,663,112 issued September 2, 1997 to Ahn et al.
7. Great Britain Patent No. 1,046,313 (based on application made in Netherlands (No. 6404460) on April 23, 1964), published October 19, 1966.
8. Japanese Patent Application No. 43-805 (based on application made in Netherlands (No. 6404460) on April 23, 1964), published January 12, 1967 with English translation.
9. German Patent Application No. 1,567,788 (based on application made in Netherlands (No. 6404460) on April 23, 1964), published May 27, 1970. See English translation of JPA No. 43-805.
10. S. Imamura et al., "Decomposition of Carbon Tetrachloride by Noble Metal Supported Titania-silica Catalysts", *Catalysis Society of Japan (CATSJ)*, June 1995, pp. 30-31 with English translation.
11. S. Imamura et al., "Decomposition of 1,2 Dichloroethane By Ruthenium-Supported Titania-silica Catalyst", *78<sup>th</sup> CATSJ Meeting*, 1996, pp. 193-194 with English translation.
12. European Patent Application No. EP 0 743 277, published November 20, 1996.
13. European Patent Application No. EP 0 761 593, published March 12, 1997 with English Abstract.
14. European Patent Application No. EP 0 761 594, published March 12, 1997 with English Abstract.
15. European Patent Application No. EP 0 761 307, published March 12, 1997 with English Abstract.
16. European Patent Application No. 0 184 413, published June 11, 1986.

One copy of each of the listed documents is submitted herewith.

The present Information Disclosure Statement is being filed (1) no later than three months from the application's filing date or (2) before the mailing date of the first Office Action on the merits (whichever is later), and therefore no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

HIBI et al.  
Appln. No. 09/249,100  
Information Disclosure Statement

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicants do not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Respectfully submitted,

SUGHRUE, MION, ZINN,  
MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, D.C. 20037-3213  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

  
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J. Frank Osha  
Registration No. 24,625

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